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Agricultural Memorandum No 683

Weather and Acute Bronchitis

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The analysis used the following factors:-

(a) 60 sets of 4 week morbidity data (C_B)
mean weekly cases per 100,000

(b) Week previous cases as infection factor (F)

(c) Difference between mean air maximum (at Kew and Speke) and mean 0900 dew point (calculated from mean vapour pressure) over 4 weeks starting 3 days previous to morbidity data, in two steps

(i) up to a maximum of 9°C (D_1)

(ii) excess, if any, over 9°C (D_2)

(d) Mean air minimum temperature at Kew and Speke (N)

The regression found was

$$C_B = 143.5 + 0.38F - 12.3D_1 - 1.4D_2 - 2N$$

with a multiple correlation of 0.93

Tested over 39 independent sets of morbidity data the correlation between actual and estimated values was 0.89

Any comments or suggestions on this paper should be referred to the author.

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